



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Mouse Interleukin-13

Catalog No.
228-10867

Source
Escherichia coli.

Synonyms:

Interleukin-13, NC300, ALRH, BHR1, P600, IL-13, IL13.

Introduction:

IL13 is an immunoregulatory cytokine produced primarily by activated Th2 cells. IL-13 is involved in several stages of B-cell maturation and differentiation. It up-regulates CD23 and MHC class II expression, and promotes IgE isotype switching of B cells. This cytokine down-regulates macrophage activity, thereby inhibits the production of pro-inflammatory cytokines and chemokines. This cytokine is found to be critical to the pathogenesis of allergen-induced asthma but operates through mechanisms independent of IgE and eosinophils. This gene, IL3, IL5, IL4, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL4.

Description:

Interleukin-13 Mouse Recombinant produced in *E.coli* is a single, non-glycosylated polypeptide chain containing 110 amino acids and having a molecular mass of 12 kDa.
The IL-13 is purified by proprietary chromatographic techniques.

Source:

Escherichia Coli.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

The protein (1mg/ml) was lyophilized with no additives.

Solubility:

It is recommended to reconstitute the lyophilized Interleukin 13 in sterile 18MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability:

Lyophilized Interleukin-13 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL13 should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Purity:

Greater than 95% as determined by SDS-PAGE.

Amino acid sequence:

The sequence of the first five N-terminal amino acids was determined and found to be Met-Pro-Val-Pro-Arg.

Biological Activity:

The ED₅₀ range=2-6 ng/ml, determined by the dose dependent proliferation of TF-1 cells.

Protein content:

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.69 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of IL-13 as a Reference Standard.

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